

Benzene Monitoring Equipment Options for State of Arkansas - 12/12/2018		
Equipment Type	Capabilities	Limitations
AreaRAE Pro	1) Utilize ProRAE Guardian system for area monitoring 2) Calibrate unit with Benzene calibration gas for readings in Benzene equivalents 3) Monitors for VOCs, combustibles, Toxics, and Oxygen 4) Can request for ppb VOC measurements 5) Can be linked to EPA's Wireless Monitoring System (Viper) 6) Detection level is sufficient to reach Acute Exposure Guideline Levels (AEGLs)	1) Measures total organics (not chemically specific for benzene) 2) Calibrating with benzene standard will probably lead to an overestimation of the benzene levels 3) Detection level would not be sufficient detect benzene at the chronic or subchronic screening level
MultiRAE Pro for general monitoring	1) Handheld version of the AreaRAE Pro 2) Calibrate unit with Benzene calibration gas for readings in Benzene equivalents 3) Monitors for VOCs, combustibles, Toxics, and Oxygen 4) Can be linked to EPA's Wireless Monitoring System (Viper) 5) Detection level is sufficient to reach Acute Exposure Guideline Levels (AEGLs)	1) Measures total organics (not chemically specific for benzene) 2) Calibrating with benzene standard probably lead to an overestimation of the benzene levels 3) Detection level would not be sufficient detect benzene at the chronic or subchronic screening level
UltraRAE 3000 with Benzene tubes	1) Measures benzene from 50 ppb to 200 ppm 2) Detection level would be sufficient to detect benzene at the subchronic screening level 3) Detection level is sufficient to reach Acute Exposure Guideline Levels (AEGLs)	1) Detection level would not be sufficient detect benzene at the chronic screening level 2) Cannot be linked to EPA's Wireless Monitoring System (Viper)
Open-Path Fourier-Transform Infrared Spectrometer (FTIR) for fence line monitoring	1) Library of 256 constituents that can be programmed 2) Contaminants of concern are identified and quantified via a computer based spectral search involving sequential, compound-specific analyses and comparison to the system's internal reference spectra library. 3) Detection level is sufficient to detect benzene at the subchronic screening level	1) Does not work well in wet conditions 2) Cannot be linked to EPA's Wireless Monitoring System (Viper) 3) High-cost system